

CLAIMS

1. A removable gripping device (1) for a container, comprising:

- two members forming a gripper (3, 4) mounted on a gripping body (2), in which one of the members forming a gripper (4) is free to move in translation with respect to the gripping body (2), along a direction approximately parallel to the longitudinal direction of the gripping body (2) between an open position and a closed position in which the members forming a gripper (3, 4) are adapted to grip an edge of the container,

- displacement means (6) adapted to displacing the members forming a gripper (3, 4) with respect to each other, comprising a lever (7) free to move in rotation with respect to the gripping body (2) between an extended position and a retracted position in which the mobile member forming a gripper (4) is in the closed position, and a transmission means (9) extending between the lever (7) and the mobile member forming a gripper (4) adapted to displacing the mobile member forming a gripper (4) in translation when the lever (7) is pivoted, and

- means (16) of actuating extension of the lever (7),

characterized in that the actuation means (16) are separate from the displacement means (6) and are installed free to translate on the gripping body (2) along a direction approximately parallel to the longitudinal direction of the gripping body (2), between a rest position and an actuation position in which the actuation means (26) make the lever

(7) move from its retracted position to its extended position.

2. Removable gripping device (1) according to claim 1,  
5 characterized in that a return means (17) continuously applies a force on the actuation means (16) tending to move them towards their rest position.

3. Removable gripping device (1) according to either claim  
10 1 or 2, characterized in that the actuation means (16) are closer to the members forming a gripper (3, 4) when they are in their rest position than when they are in the actuation position.

15 4. Removable gripping device (1) according to one of claims 1 to 3, characterized in that the displacement means (6) are shaped such that the lever (7) is in a stable equilibrium position when it is in the extended position and when it is in the retracted position, and it passes  
20 through an intermediate unstable equilibrium position when it pivots from one of these two stable equilibrium positions to the other.

5. Removable gripping device (1) according to claim 4,  
25 characterized in that the actuation means (16) comprise an element forming an inclined plane (18) that is designed to stop in contact with a bearing surface (19) of the lever (7) when the actuation means (16) are in the actuation position, and to impose a rotation movement on lever (7)

from its retracted position until it passes through the unstable equilibrium position.

6. Removable gripping device (1) according to one of claims  
5 1 to 5, characterized in that the actuation means (16) include an activation button (20) that can be manipulated manually to move the actuation means (16) and that projects from a surface of the gripping body (2) opposite the side to which the lever (7) is fixed.

10

7. Removable gripping device (1) according to claims 5 and 6, characterized in that the mobile member forming a gripper (4) has a groove (21) through which the activation button (20) is fixed to the inclined plane (18).

15

8. Removable gripping device (1) according to one of claims 1 to 7, characterized in that the actuation means (16) in the rest position are designed to prevent any pivoting movement of the lever (7) from its retracted position to  
20 its unstable equilibrium position.

9. Removable gripping device (1) according to claim 8, characterized in that the actuation means (16) cooperate with the lever (7) by click fitting to lock it in its  
25 retracted position.

10. Removable gripping device (1) according to either claim 8 or 9, characterized in that the lever (7) comprises a hook (22) that is adapted to engage in an opening (23) made  
30 in the actuation means (16) when the lever (7) is in the

retracted position and the actuation means (16) are in the rest position, and adapted to be disengaged from the opening (23) by translation of the actuation means (16) towards their actuation position before releasing the lever (7).

11. Removable gripping device (1) according to claim 10, characterized in that the hook (22) comprises an upper surface (24) designed to entrain the actuation means (16) in the direction of their actuation position when the lever (7) pivots towards its retracted position, up to a position enabling click fitting of the hook (22) in the opening (23).

12. Removable gripping device (1) according to one of claims 1 to 11, characterized in that the displacement means (6) are designed to adjust the distance between the two members forming a gripper (3, 4) in the closed position to the thickness of the gripped container.

13. Removable gripping device (1) according to claim 12, characterized in that a spring (15) designed to act on the mobile member (4) so as to adjust the distance between the two members forming a gripper (3, 4), is housed in the transmission means (9).

14. Removable gripping device (1) according to one of claims 1 to 13, characterized in that the transmission means (9) are formed by a connecting rod (9) that is installed free to move in rotation with respect to the

lever (7) and with respect to the mobile member forming a gripper (4).

15. Removable gripping device (1) according to claim 14,  
5 characterized in that the connecting rod (9) is free to move in rotation with respect to the lever (7), about a shaft (13) that is located close to the end of the lever (7) opposite the end at which the lever (7) is hinged to the gripping body (2).

10

16. Removable gripping device (1) according to one of claims 1 to 15, characterized in that the length of the lever (7) corresponds to the width of three fingers in contact with each other.

15

17. Removable gripping device (1) according to one of claims 1 to 16, characterized in that the lengths of the lever (7) and the gripping body (2) are such that a user holding the gripping device (1) in his or her hand will  
20 have his or her index finger and middle finger in contact with the lever (7), and the ring finger and little finger in contact with the gripping body (2).